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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ABRAHAM, FETSUM

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 04 03 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004 483

Applicant(s)

KIMURA HAJIME

Examiner

Fetsum Abraham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/20/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Continuation of Disposition of Claims: Claims pending in the application are 1,5,6,9,10,11,13,17,18,21-23,25,29,30,33-35,37,41,42,45-47,49,53-54,57-59,61,63,65,67-69,71,73,75-77,79-81,83-85,88,89,92,93,96,97,100,101,104,105,108,109,113,114,117-110,121,125-126,129-131,133,135,137,139,140,142,144,146,147,151,153,154,160,161,164-166,168,170,174,175,178,180,181,184,198,188,189,192-194,202,203,206-208,210.

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Claim Rejections - 35 USC § 112

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed three light emitting elements in each pixel of the claimed invention (claim 156) must be shown in drawings for proper examination. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

There is no direct relationship between the claimed structure and the applicant provided figures representing the claimed invention (claims 5,6,9,10,11,13). Figure 6 is an example. In the figure, there is no connection between said second signal line (S2) and any of the switching transistors in the preceding pixel.

The figure does not represent the claimed element such that the signal line driver as outputting timing signals to said first and second logical circuits. Clearly, one transistor in a given pixel is in contact with the respective signal line, hence, said signal line driver via the signal lines (S1,S2..)

2. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

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Applicant is given a TWO MONTH time period to submit a drawing in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims **5,6,9,10,11,13**, 17, 18, 21-23, 25, 29, 30, 33-35, 37, 41, 42, 45-47, 49, 53, 54, 57-59, 61, 63-65, 67-69, 71-73, 75-77, 79-81, 83-85, 88, 89, 92, 93, 96, 97, 100, 101, 104, 105, 108, 109, 113, 114, 117-119, 121, 125-126, 129-131, 133, 137, 139, 140, 144, 146, 147, 151, 153, 154, 160, 161, 164-166, 168, 174, 175, 178, 180, 181, 188-189, 192-194, 202, 203, 206-208, 210, are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MEP. § 2172.01. The omitted structural cooperative relationships are: the relationship of the following elements.

There is no direct relationship between the claimed structure and the applicant provided figures representing the claimed invention (claims **5,6,9,10,11,13**). Figure 6 is an example. In the figure, there is no connection between said second signal line (S2) and any of the switching transistors in the preceding pixel. This conflict must be resolved.

The figure does not represent the claimed element such that the signal line driver as outputting timing signals to said first and second logical circuits. Clearly, one transistor in a given

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pixel is in contact with the respective signal line, hence, said signal line driver via the signal lines (S1,S2..)

A significant conceptual problem exists in the applicant's claim that one of the logical circuits outputs a first signal to the first line and the other to said second signal line. This claim language contradicts with the basic array operation of display devices since signals from signal lines are commonly understood to be the input to a pixel through switching elements and not the output of the pixel.

The claimed three light emitting elements in each pixel of the claimed invention (claim 156) must be shown in drawings for proper examination. In fact one emitting element is shown in the figures.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 1,135,142,170,184,198 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (6,424,326) in view of Asai (6,445,372).**

Yamazaki et al disclose a semiconductor based display matrix structure in figure 1 composed of signal line driver circuit (103) a sensor pixel portion (106) and an EL element that emits light, n output switching element (130) that outputs signals to the pixel elements, but omits to teach timing signals provided by the driving circuit block. However, such signals are commonly

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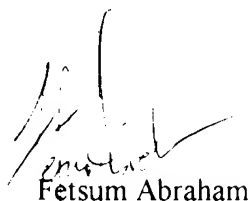
provided by driving blocks as taught by Asai in figure 2 where the timing signal controller (26) is directly applying timing signals to the driving circuit blocks (22 and 24) which in return control the timing signals of the switches in the pixels. Therefore, it would have been obvious to one skilled in the art that drivers indeed provide timing signals to pixel elements either directly or indirectly, since it is necessary for data/scan signals to be times for synchronization purposes.

As for claims 135,142, the driving circuits (data and scan or selection) are composed of TFT switches and other TFTs associated with resetting, and photoelectric conversion tasks because MOSFETs are the standard element with out which the tasks could not be performed.

As for claim 198, the display device of the prior arts are applicable in all display environments including the claimed terminal.

Any inquiry concerning this communication should be directed to Fetsum Abraham at telephone number (703) 305,3793, or by E-mail at *fetsum.abraham@uspto.gov*.

Any inquiry of a general nature or relating to the status of this application should be directed to the *SPE of AU:2826* at (703)308-6601, or the *Group receptionist* at (703) 308-0956.



Fetsum Abraham

3/27/03